

[ELECTROSTATIC DISCHARGE PROTECTION DEVICE]

Abstract

An electrostatic discharge (ESD) protection device including an ESD clamp circuit is provided. The ESD clamp circuit includes at least a diode connected in series between a first voltage and a pad, and at least an ESD component connected in series between a second voltage and a pad. Each of the at least an ESD component comprises a deep N-well region formed in a P-type substrate, a triple P-well formed in the deep N-well region, and a highly doped N-type (N+) region and a highly doped P-type (P+) region formed in the triple P-well region.